FY15-FY17 IT STRATEGY

INFORMATION TECHNOLOGY STRATEGY FOR THE TRANSFORMATION OF THE

NORTH CAROLINA DEPARTMENT OF REVENUE

SUBMITTED BY DAVID ROSEBERRY

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EXECUTIVE SUMMARY

This document supplements the Department of Revenue's CY13-15 Strategic Plan. This document summarizes how IT will contribute to the success of the Agency specific enough to drive decision making. It is expected to be used from FY15 to FY18, with annual updates. It is important to note the difference between the IT Strategy and the IT Strategic plan. The strategy sets direction, whereas the plan will outline the specific initiatives over the next three years.

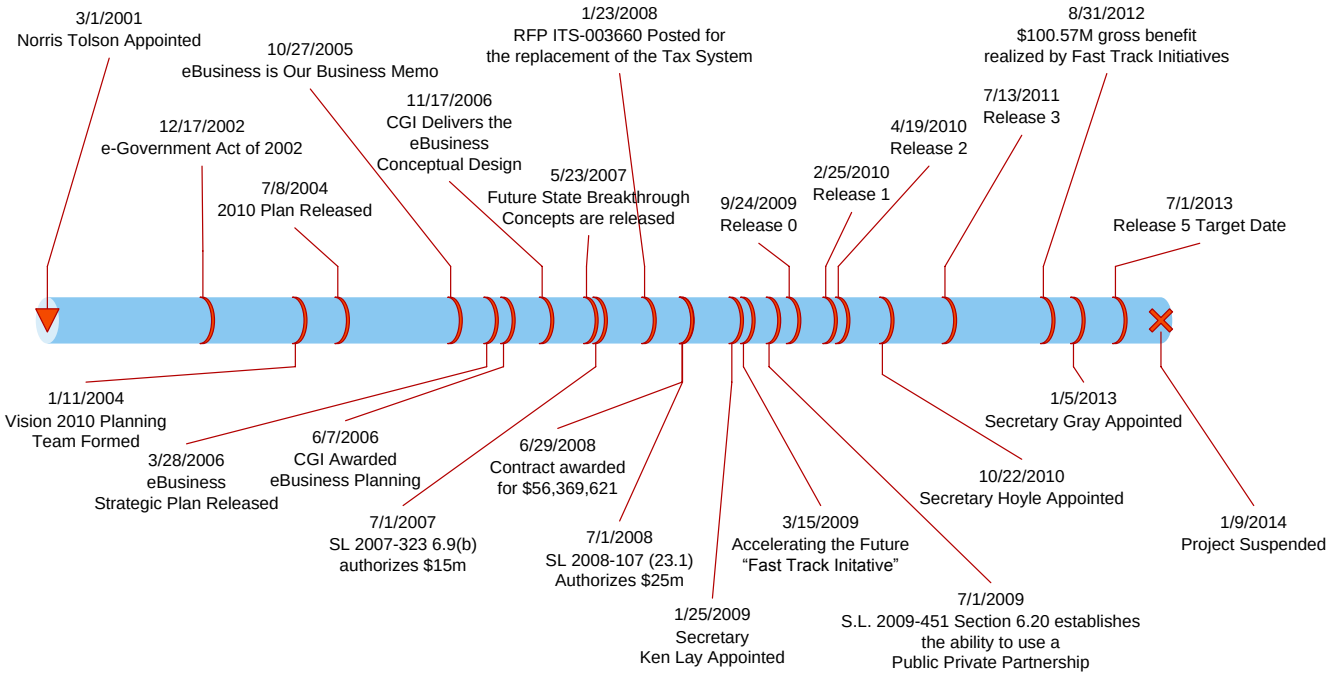
IT STRATEGY

1. Move from reactive to proactive risk management.
2. Disaggregating ITAS functionality in order to accelerate the delivery of business value.
3. Increase the use of shared services to improve agility.
4. Improve IT Service Management.

HISTORY

Preliminary discussions for Vision 2010 strategic planning began in 2002. Priorities were identified, and, between 2002 and 2004, the Department acted on those priorities--launching the Taxpayer Assistance and Collection Center, opening new taxpayer service centers, expanding e-commerce, and strengthening compliance efforts. In January 2004, to continue planning, the Department officially formed a Vision 2010 Planning Team. The resulting e-Business Strategic Plan was released March 28, 2006 followed by the TIMS Implementation Plan. The primary objective of the plan was the replacement of the legacy tax system, ITAS, running on a mainframe, which was implemented by Andersen Consulting (now known as Accenture) in the mid-1990's. On June 29, 2008 a contract was awarded to CGI for $56,369,621 for the implementation of a new Tax Information Management System (TIMS).

The TIMS project had produced three releases, including "fast track" initiatives that were responsible for generating $100M gross benefits as reported on August 31, 2012. Several smaller tax schedules were consolidated into the Enterprise Tax Management (ETM) system from Oracle. However, the product began to have serious performance issues which prevented the continued consolidation of larger tax schedules, such as personal income tax. The vendor was unable to satisfactorily resolve the performance issues and as a result, the Department of Revenue canceled the contract on January 9, 2014.



BUSINESS PROFILE

The NC Department of Revenue ("Agency") administers a total of 25 tax types. During Fiscal Year 2012 the Agency's gross collections were $26.3 billion. We processed 10,888,330 tax returns and issued 3,173,633 refunds totaling $2.8 billion. We handle an average of two million taxpayer interactions per year. The agency has 1,410.25 permanent FTEs who are located at our headquarters in Raleigh, in 12 service centers located across the state and in 17 different states. Our budget is comprised of General Fund Appropriations of $79.4 million, plus various receipts of $35.7 million, for a total budget $115.1 million.

The General Assembly of North Carolina creates tax law in order to produce revenues for the state that are then used to deliver services to citizens. The Agency is responsible for value capture through voluntary & involuntary compliance. Our customers[1] are Tax Filers, Tax Payers, Debtors, NC Office of State Budget and Management (OSBM), NC Department of Transportation and the counties and municipalities of North Carolina.

The Agency provides many services including refunds, assessments, notices, criminal investigations, garnishments & liens, education, tax payer advocacy, high speed scanning, deposits and distributions.

[1] Ken Miller's book We Don't Make Widgets.

The key business capabilities required for the Agency to fulfill its mission are:

- Collections
- Examinations
- Translate Law
- IT Service Management
- Customer Service
- Financial Transactions
- Outbound Contacts
- eServices
- Customer Education
- Revenue Accounting
- Submission & Registration
- Business Intelligence

BUSINESS MODEL

The business model (Porter, 1980) of the Agency is, in large part, cost leadership achieving low operating cost vs. revenue collected. This is accomplished by offering high volumes of standardized products (tax forms) with no-frills products and limited personalization of services. Most value capture is through voluntary compliance. The secondary business model pursues a differentiation strategy for debtors. This is a much smaller target customer base that has very specific needs, debt reduction. The Agency has unique resources and capabilities to capture value such as attachments, garnishments and payment plans. This differentiation drives additional profitability and has show consistent return on investment.

OPERATING MODEL

The Agency has a strategy of operational excellence (Wiersema, 1997) defined by a focus on providing customers with reliable products or services at the lowest cost, delivered with minimal difficulty or inconvenience. By creating a disciplined, low-cost culture, the Agency has been able to keep cost low yet provide high-quality products and service. The Agency uses business process engineering to determine ways to minimize overhead costs, eliminate intermediate production steps, reduce transaction and other "friction" costs, and to optimize business processes across functional and organizational boundaries.

The strategic posture of the Agency, how we will be successful in fulfilling our mission, follows three principles:

- Optimization of processes for the collection of taxes through voluntary and involuntary compliance streamlined to minimize cost.
- Operations are standardized, simplified, controlled and centrally planned.
- Management systems use a best of breed approach and a Service Oriented Architecture with a focus on access to data.

CONSTRAINTS

Gaps in current capabilities vs. desired capabilities, additional constraints, and business drivers will be captured in more detail in the division specific PDPs. The Business Relationship Manager facilitates this process and maintains current versions.

External drivers, mission statement, values and pillars are all contained in the Department of Revenue's CY13-15 Strategic Plan.

Our business is regulated and must adhere to applicable state law as well as IRS 1075 and PCI regulations.

IT Risks & Issues

With the conclusion of the TIMS project, there are several key business conditions that must be addressed in order to move forward such as IT architecture and risk levels. While the original project objectives are still valid, today we find ourselves in a position of increased complexity and risk, with decreased skills and capacity to address the issues.

IT Architecture

The TIMS project implemented new functionality in the Examination Division including a product called DTax that is a combination of a data mart and functionality specific to the Examination area for case scoring. This data mart utilizes the IBM Enterprise Service Bus to access data contained in ETM. Because the project was unable to retire ITAS, this has complicated the architecture and, in effect, left us with two tax processing systems.

Operational Risk

With the additional complexity in the architecture, there is an increase in operational risk that will need to be addressed. Key risks include:

- Knowledge transfer was not completed for support of the enterprise service bus. It is an advanced product that brings significant capability to the Department, but the IT staff has not been trained to support or leverage it.
- ETM has been implemented with failover in mind, but the production system is housed in the same location and in the same building that the staff resides in. A disaster that would profoundly impact the building would make restoring functionality extremely difficult and time consuming.
- With the focus on implementing new functionality, the decision was made to not invest in maintaining infrastructure. As a result, much of the hardware is aged and at end of life. Operating systems and applications, including ETM, are no longer supported by the vendors.
- Staff is not trained to support current versions of systems and applications, further complicating our ability to uplift the environment and move forward.
- With the cancelation of the contract, staff that was funded directly by the contract has been eliminated. This has left a gap in knowledge, as well as, reducing overall capacity.
- The primary tax system, ITAS is supported largely by staff that are eligible for retirement, therefore knowledge transfer is paramount.

IT STRATEGY

The IT Strategy for the North Carolina Department of Revenue is to maximize revenue and compliance, with lower operational risk, while enabling excellent customer service and making online interactions with the Department of Revenue simple and seamless. This will be pursued along multiple lines:

- Risk Management
- Disaggregation as a infrastructure strategy
- Increased use of shared services
- Improve IT Service Management capabilities

These lines of activity will drive the IT department for the next two to three years.

RISK MANAGEMENT

The risk management strategy of IT is to move from a reactive stance to a proactive one that

- Tightly integrates risk identification into IT service management
- Aggressively protects the assets of the Agency
- Makes risk issues transparent to Agency leadership

DISAGGREGATION

The vision of the TIMS project was to provide eServices. At the time, technology was not capable of providing web based services utilizing a mainframe back end. Time has changed and technology has advanced. Using a best of breed approach allows us the maximum flexibility to implement critical business functionality and disaggregate capabilities embedded in ITAS, reducing its criticality. ITAS will be targeted for replacement after the divisions have implemented their new solutions. Changes to the legacy systems will be limited and we will use a service bus as the interface between the legacy system and new applications. This approach will allow us to achieve maximum business value incrementally rather than wait for a big bang approach with a longer timelines, higher risk, and complex change evaluation.

SHARED SERVICES

The Office of Information Technology Services at the state level (OITS) is a central provider of services and should have the ability to provide routine services that are cost effective and scalable. The Agency has not been able to leverage these services effectively and we will opportunistically leverage this capability for several key infrastructure projects such as Active Directory and Office 365 products. In addition, as we upgrade old hardware, we will seek to implement the new equipment in the OITS data centers. This will allow us to expand use of OITS services in the future as is practical and cost effective.

IT SERVICE MANAGEMENT

The Agency had adopted ITIL version 2, but significant gaps exist. Process maturity is low overall and several key processes are not present. In all cases, measures are not used so a continual service improvement capability is not in place. The focus will be to ensure that Service Strategy is highly

functional and aligned with the business. Service Transition is the most mature and can begin to focus on documentation and measures. Service Design is a significant and serious gap in capability. This will need to be a key focus area including the development of Enterprise Architecture, Data Architecture and potentially Solution Architecture.

ORGANIZATION

In order to execute on this strategy, our organization we will need to ensure we have the following:

Strategy	Capabilities	People	Processes
Disaggregation	SOA MDM	Enterprise Architecture Data Architecture Solution Architecture	TOGAF MDM/BI
Risk Mitigation	Risk Management	CISO	ISACA RiskIT
Shared services	Cross functional collaboration	Vendor Management	Service Level Management
Improve IT Service delivery	ITSM	Process Owners	ITIL

IT PRINCIPLES

The guiding principles we will use in IT to make sure that we are supporting the needs of the business and ensuring operational efficiency are listed below.

Table 1: IT Guiding Principles

Guiding Principal	How we will use it
1. N-1	We will keep all systems, software, operating systems and related training at the most current levels and upgrade aggressively so that we are no more than one version behind.
2. Incremental vs. Big Bang	Develop and deliver solutions incrementally as opposed to large-scale, multi-year projects
3. Leverage Shared Services	We will always seek to focus resources on tasks that are business critical and specialized to the Department and will leverage ITS Shared Services or outsourcing for all other work when practical.
4. Augment labor	We will seek to leverage outside labor for project work relying on knowledge transfer and training during release management and early life support phases of project deliver. This allows the limited, permanent staff to focus on service management while outside staff focus on transformation activities
5. Articulate Risk	The IT culture of the Agency is to assume that issued raised by staff regarding age of equipment, lack of training and other risk areas will not be addressed by management due to the cost implications. This needs to be reversed and a new culture established where IT will actively identity risk and make the issues transparent so that Agency leadership can determine what risks will and will not be accepted.

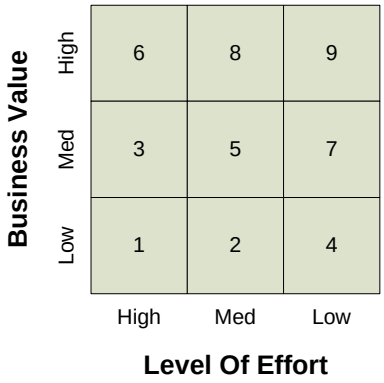
IT Governance

The Department now manages IT demand by developing and maintain PDPs, keeping a roadmap of projects over time and logging all demand into a single tool (JIRA). The entire portfolio of projects is segmented in order to suggest prioritization and gather projects of similar types so that decisions can be made in context. The portfolio segments are:

Table 2 Portfolio Segments

Priority	Type	Description
1	Infrastructure	Projects required to maintain the value of an asset in production
2	Legislative	Required by law (Legislature makes tax law changes up to 9 times a year)
3	Compliance	Addresses audit findings from PCI, IRS 1075 or other audit findings
4	ROI	Projects that return more value than they cost to execute
5	Strategic	Discretionary projects that are deemed by IT Governance to be highly desirable
6	Discretionary	All other projects

Once a project has been identified and segmented, they are given a value based on level of effort to execute and impact to the business. The value assigned is then used to prioritize projects within each segment.



Once projects are segmented and assigned an initial value, they are presented by the Business Relationship Manager to the IT Governance Council which is comprised of the Assistant Secretaries. Projects are reviewed and segments and values are finalized. The IT Governance Council then selects projects that would enter into the Service Design lifecycle once capacity allows it. The Business Relationship Manager and Director of Service Transition will meet periodically with the IT Governance Council to update them on project status. Any capacity issues, conflicts, constraints, project issue or other concerns will be raised for consideration at this time.

Infrastructure projects will be reviewed and prioritized by the IT Directors. The IT Directors will meet periodically, facilitated by the Business Relationship Manager, to finalize segment type and select potential Infrastructure projects to enter into Service Design. The Design Council, led by the CTO and augmented by IT subject matter experts, will finalize all 9 Box values for projects that are Infrastructure Segments.

IT Financial Management

The IT function is funded through budget appropriation and has a budget that is separated from the rest of the Department. IT is a cost center and is expected to execute day to day activities, maintain equipment, staff and all IT contracts within this budget. Projects can be funded through multiple sources, including legislative appropriation, which would be set aside in a separate budget specific

to the project. In addition, if there are positions open, the unexpended budget that was intended for salary (lapsed salary) can be used for other work as long as it does not include hardware. IT does not charge internally for services. The state uses cash based accounting rather than accrual based accounting and as such, there are no capital budgets. In addition, the state must allocate funds before the budget can be expended against.

IT Services

We will renew and improve the adoption of Information Technology Infrastructure Library (ITIL) within IT to improve lifecycle performance and specifically focus on Service Design as a key capability. Additionally, all organizational components that are related to Service Transition will be organized under single leadership to improve project execution, reduce early life support and scale the capability of Knowledge Management across the Department, creating a new enterprise service. The former Business Transformation Team will be recast and used to augment change management and change evaluation.

The Service Strategy lifecycle will also be created in order to improve business alignment and overall demand and portfolio management. This will ensure that the business needs are constantly collected and understood as well as gating demand. It is extremely important to ensure that we work on the highest priority items and focus all capacity on achieving what is most important with laser focus.

Enterprise Architecture

We will create a new focus on enterprise architecture, led by the Department Chief Technical Officer (CTO) and adopt industry standards (TOGAF) for documenting and maintaining our technology blueprints. This will allow us to process change evaluation more quickly and make clear integration components, leverage our investments and better manage integrations.

People

IT will be reorganized. Department is 135 people. We have ## of retirements estimated by 2016. Key resource issues in the mainframe support area.

Sourcing

This section explains the approach to sourcing, along with the rationale. This may be expressed as a set of sourcing principles. In addition, any important relationships (e.g., a long-term contract with a provider of support services) should be highlighted, with relevant details such as the relationship's scope and duration.

Table 3: Sourcing Principles

Principal	Description
Pay for Value	IT contracts will seek to delay payment until real business value is delivered rather than based on project milestones. Payment should not be made until something of tangible, ongoing business value is delivered.
Partnership	Traditional knowledge transfer from vendors has not been working in

	the Agency and so a new approach needs to be taken. We will seek to establish more of a partnership with our vendors so that risk is shared and vendors can coach and train staff, augment our projects rather than own them, and establish long term relationships.